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EXAMINER	
PETERSON, CHRISTOPHER K	

ART UNIT	PAPER NUMBER
2622	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,659	OHKI, MITSUHARU	
	Examiner	Art Unit	
	CHRISTOPHER K. PETERSON	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 March 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,19 and 20* is/are pending in the application.

4a) Of the above claim(s) *5-18* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,19 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I (Claims 1 - 4, 19, and 20) in the reply filed on 3/2/2010 is acknowledged.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement (IDS) was filed with the application on 7/19/2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 19, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 19, and 20 cite the limitation "assumption". One skilled in the art would not know to carry out said first or second mode. Claims should be written in "full, clear, concise, and exact terms".

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. **Claim 20** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 20 defines a control program embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason. That is, the scope of the presently claimed control program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

10. Claims 1 - 3, 19, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Hara (US Patent # 7,057,645).

As to claim 1, Hara (Fig. 1 and 8) teaches a control method provided for a photographing apparatus (digital camera 100) as a control method having a first mode (proper integration time T1 (sec.) is equal to or shorter than the limit integration time T0 (sec.) (YES in Step #100)) for generating an output image by taking one input image (C=1 Step #120) and a second mode (proper integration time T1 (sec.) is longer than the value 2T0 (sec.) (NO in Step #130)) for generating an output image by taking a plurality of input images successively (number of image pickup operations "C") whereby at least one of a first exposure time (T1 ≤ T0), which is an exposure time (T1) of a photographing operation to take an input image (“C”) on the assumption that said photographing operation is to be carried out in said first mode (YES in Step #100), and a second exposure time (T1 ≥ 2T0), which is an exposure time (T1) of a photographing operation to take a plurality of input images (“C”) on the assumption that said photographing operation is to be carried out in said second mode (NO in Step #130), is compared with a predetermined threshold value (T0) in order to produce a result of determination as to whether to carry out a photographing operation in said first mode

(YES in Step #100) selected as a photographing mode or carry out a photographing operation in said second mode (NO in Step #130) selected as said photographing mode (Col. 10, line 34 - Col. 11, line 39). Hara teaches the integration time calculator 302 judges whether the proper integration time T1 is equal to or shorter than the limit integration time T0 or not (Step #100). When the proper integration time T1 (sec.) is equal to or shorter than the limit integration time T0 (sec.) (YES in Step #100), a proper picture image without camera shake can be obtained even when the image pickup device 110 is driven by the proper integration time T1 (Col. 10, lines 37 - 45). When the proper integration time T1 (sec.) is longer than the value 2T0 (sec.) (NO in Step #130), it may well be that the camera shake occurs in the monitor image displayed on the monitor display 130 by the two pixel data adding mode. When the proper integration time T1 is equal to or smaller than a value 4T0 which is a quadruple of the limit integration time T0, a proper picture image without camera shake can be obtained by one image pickup operation in the four pixel data adding mode. Thus, the image pickup number setting portion 303 sets the number C=1. Subsequently, when the number of image pickup operations "C" is set, the integration time calculator 302 sets the value of the proper integration time T1 divided by the number "C" as the control integration time T2 (T2=T1/C) (Step #160) (Col. 11, lines 5 - 31).

As to claim 2, Hara (Fig. 8) teaches said control method comprising:

- a first determination step (Step #100) of producing a result of determination as to whether or not said first exposure time (T1) is equal to or shorter than a first threshold value (T0) (Col. 10, lines 35 - 51). Hara

teaches the integration time calculator 302 judges whether the proper integration time T1 is equal to or shorter than the limit integration time T0 or not (Step #100). When the proper integration time T1 (sec.) is equal to or shorter than the limit integration time T0 (sec.) (YES in Step #100), a proper picture image without camera shake can be obtained even when the image pickup device 110 is driven by the proper integration time T1 (Col. 10, lines 37 - 45).

- a first decision step (Step #100) of making a decision to take an image in said first mode (T1 ≤ T0) if said determination result produced at said first determination step (Step #100) indicates that said first exposure time (T1) is equal to or shorter than said first threshold value (T0) (Col. 10, lines 35 - 51); and
- a second decision step (Step #130) of making a decision to take an image in said second mode (NO in Step #130) if said determination result produced at said first determination step (Step #100) indicates that said first exposure time (T1) is neither equal to nor shorter than said first threshold value (T0) (Col. 10, line 52 - Col. 11, line 39). When the proper integration time T1 (sec.) is longer than the limit integration time T0 (sec.), it may well be that the camera shake occurs in the monitor image displayed on the monitor display 130 which is formed by the image data taken by the image pickup device 110 in the proper integration time T1 (Col. 10, lines 52 - 60).

As to claim 3, Hara teaches wherein said first threshold value (T0) is a limit of exposure times not causing effects of hand trembling (camera shake) on said input image taken (“C”) in said first mode (YES in Step #100) (Col. 10, lines 41 - 51). When the proper integration time T1 (sec.) is equal to or shorter than the limit integration time T0 (sec.) (YES in Step #100), a proper picture image without camera shake can be obtained even when the image pickup device 110 is driven by the proper integration time T1 (Col. 10, lines 41 - 51).

As to claim 19, Hara (Fig. 1 and 8) teaches a control apparatus provided for a photographing apparatus (digital camera 100) having a first mode (proper integration time T1 (sec.) is equal to or shorter than the limit integration time T0 (sec.) (YES in Step #100)) for generating an output image by taking one input image (C=1 Step #120) and a second mode (proper integration time T1 (sec.) is longer than the value 2T0 (sec.) (NO in Step #130)) for generating an output image by taking a plurality of input images successively (number of image pickup operations "C") wherein at least one of a first exposure time ($T1 \leq T0$), which is an exposure time (T1) of a photographing operation to take an input image (“C”) on the assumption that said photographing operation is to be carried out in said first mode (YES in Step #100), and a second exposure time ($T1 \geq 2T0$), which is an exposure time (T1) of a photographing operation to take a plurality of input images (“C”) on the assumption that said photographing operation is to be carried out in said second mode (NO in Step #130), is compared with a predetermined threshold value (T0) in order to produce a result of determination as to whether to carry out a photographing operation in said first mode (YES in Step #100) selected as a

photographing mode or carry out a photographing operation in said second mode (NO in Step #130) selected as said photographing mode (Col. 10, line 34 - Col. 11, line 39). Hara teaches the integration time calculator 302 judges whether the proper integration time T1 is equal to or shorter than the limit integration time T0 or not (Step #100). When the proper integration time T1 (sec.) is equal to or shorter than the limit integration time T0 (sec.) (YES in Step #100), a proper picture image without camera shake can be obtained even when the image pickup device 110 is driven by the proper integration time T1 (Col. 10, lines 37 - 45). When the proper integration time T1 (sec.) is longer than the value 2T0 (sec.) (NO in Step #130), it may well be that the camera shake occurs in the monitor image displayed on the monitor display 130 by the two pixel data adding mode. When the proper integration time T1 is equal to or smaller than a value 4T0 which is a quadruple of the limit integration time T0, a proper picture image without camera shake can be obtained by one image pickup operation in the four pixel data adding mode. Thus, the image pickup number setting portion 303 sets the number C=1. Subsequently, when the number of image pickup operations "C" is set, the integration time calculator 302 sets the value of the proper integration time T1 divided by the number "C" as the control integration time T2 (T2=T1/C) (Step #160) (Col. 11, lines 5 - 31).

As to claim 20, Hara (Fig. 1 and 8) teaches a control program to be executed by a computer as a program for controlling a photographing apparatus (digital camera 100) having a first mode (proper integration time T1 (sec.) is equal to or shorter than the limit integration time T0 (sec.) (YES in Step #100)) for generating an output image by taking

one input image (C=1 Step #120) and a second mode (proper integration time T1 (sec.) is longer than the value 2T0 (sec.) (NO in Step #130)) for generating an output image by taking a plurality of input images successively (number of image pickup operations "C") wherein at least one of a first exposure time (T1 ≤ T0), which is an exposure time (T1) of a photographing operation to take an input image (“C”) on the assumption that said photographing operation is to be carried out in said first mode (YES in Step #100), and a second exposure time (T1 ≥ 2T0), which is an exposure time (T1) of a photographing operation to take a plurality of input images (“C”) on the assumption that said photographing operation is to be carried out in said second mode (NO in Step #130), is compared with a predetermined threshold value (T0) in order to produce a result of determination as to whether to carry out a photographing operation in said first mode (YES in Step #100) selected as a photographing mode or carry out a photographing operation in said second mode (NO in Step #130) selected as said photographing mode (Col. 10, line 34 - Col. 11, line 39). Hara teaches the integration time calculator 302 judges whether the proper integration time T1 is equal to or shorter than the limit integration time T0 or not (Step #100). When the proper integration time T1 (sec.) is equal to or shorter than the limit integration time T0 (sec.) (YES in Step #100), a proper picture image without camera shake can be obtained even when the image pickup device 110 is driven by the proper integration time T1 (Col. 10, lines 37 - 45). When the proper integration time T1 (sec.) is longer than the value 2T0 (sec.) (NO in Step #130), it may well be that the camera shake occurs in the monitor image displayed on the monitor display 130 by the two pixel data adding mode. When the

proper integration time T1 is equal to or smaller than a value 4T0 which is a quadruple of the limit integration time T0, a proper picture image without camera shake can be obtained by one image pickup operation in the four pixel data adding mode. Thus, the image pickup number setting portion 303 sets the number C=1. Subsequently, when the number of image pickup operations "C" is set, the integration time calculator 302 sets the value of the proper integration time T1 divided by the number "C" as the control integration time T2 (T2=T1/C) (Step #160) (Col. 11, lines 5 - 31). Hara teaches a control circuit 150 configured by a CPU, a memory, and so on. Examiner analyzes this to mean the control circuit controls all of the functions of the digital camera by the use of a CPU and memory. It is well known in the art and inherent that a CPU will not function until it is programmed. Examiner therefore believes the memory and CPU of the control circuit provides Hara with a control program.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hara (US Patent # 7,057,645) in view of Shimada (US Patent Pub. 2004/0189822)**.

As to claim 4, note the discussion of Hara in regards to claim 2 above. Hara does not teach wherein said first threshold value is a value based on a focal distance. Shimada reference teaches a first exposure condition calculating operation, proper exposure conditions in imaging are calculated by the imaging element including the effective exposure time and ISO sensitivity without preliminary light emission from the strobo part (Abstract). Shimada (Fig. 4) teaches wherein said first threshold value (blur limit shutter speed (hereinafter referred to as Tv)) is a value based on a focal distance (inverse of the focal distance (in mm)) used at an image-pickup time to take said input image (Para 66). Shimada teaches the "blur limit shutter speed" is such a low speed side limit shutter speed that an image obtained as a result of the imaging is free from any blur recognizable by the observer, and is usually understood to correspond to the inverse of the focal distance (in mm) of the lens used for the imaging. In this embodiment, the exposure control is executed such that the exposure correction is executed with the blur limit shutter speed (hereinafter referred to as Tv) taken into consideration. All of the controls including the exposure control are executed with collective control of the control system by the system controller 24 (Para 66). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a focal distance as taught by Shimada to the camera system of Hara, because the control can be made easily, and it is possible to reduce the release time lag in the transition from the preliminary light emission until the execution of imaging with regular light emission after the second release operation (Para 119 of Shimada).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Okada (US Patent # 7,386,228) cites an image taking apparatus and an image taking method for improving an image quality of a taken image by correcting image blur caused by hand shake.

Ashida (US Patent # 6,833,864) cites an image capturing apparatus such as a digital camera and method thereof that are able to obtain a preferable image of a subject with a broad brightness range.

Tominaga (US Patent Pub. 2007/0077055) cites an image taking apparatus and a program for obtaining an object image and to perform multiple-exposure shooting by use of the object image.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER K. PETERSON whose telephone number is (571)270-1704. The examiner can normally be reached on Monday - Friday 6:30 - 4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Sinh can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. K. P./
Examiner, Art Unit 2622
3/26/2010

/Sinh Tran/
Supervisory Patent Examiner, Art Unit 2622